

Application No.: 10/055,872  
Amendment dated: September 10, 2003  
Reply to Office Action of April 10, 2003

b.) Remarks

Claims 1-27 are pending in this application. New claims 22-27 been added to alternatively define Applicants' invention.

Claims 1-21 were rejected for being indefinite. This rejection is respectfully traversed for the following reasons.

It was questioned whether the "facets are at both ends or at one end of the semiconductor only." Claim 1, however, describes "a first tilted facet and second tilted facet located at either end of the stripe", and claim 17 describes "a tilted front facet and a highly reflecting back facet". Thus, the claims are clear on this point.

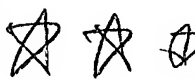
The structural significance of the tilted facets was questioned. The specification at page 6, line 6, describes that the tilted facets prevent self-oscillation.

The significance of the location of the fibers opposite the facets was questioned.  
This enables optical coupling between the fibers and the chip.

Not disclosed in claim!

The significance of the lowest order mode being greater than 5 micrometers was questioned. In order for the overall system to be efficient, it is important that the lowest-order waveguide mode be comparable to the fiber mode in size and shape. This mode size ensures this efficiency. The chip can even be overmoded as described in claim 14.

Dimension



Thus, for these reasons, Applicants believe that these rejections are not justified.

Claim 1-21 were rejected as either being anticipated or obvious relative to the Alphonse patent. These rejections are also respectfully traversed.

Claims 1 and 17 require that the lowest order spatial mode be greater than 5 micrometers in diameter. This is not shown by the reference.

\* 103

As mentioned before, the large mode enables efficient coupling to fiber, avoiding the need for mode conversion optics such as lenses 440, 450 in Fig. 6 of the Alphonse Patent.

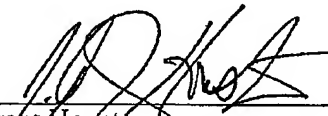
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Further, new claim 22 describes that the lowest order spatial mode is greater than 5 micrometers in both the lateral and transverse directions, which is further not shown.

Applicants thus request withdrawal of these art rejections.

Applicants believe that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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